

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Jun. 9, 2004 9:58AM 207-773-4585

12. {new} The kit described in Claim 10 wherein when said cover is draped over said arches and said hold-downs are connected, said base sheet can be lifted from first side-edge and bunched between said hold-downs and said arches so that said supplementary sheet forms said outer surface of said cover between said line and said said first side-edge.

13. {new} The kit described in Claim 10 wherein when said cover is draped over said arches and said hold-downs are connected, said supplementary sheet can be lifted from first side-edge and bunched between said hold-downs and said base sheet so that said base sheet forms said outer surface between said line and said first side-edge.

14. {new} The kit described in Claim 10 where said base sheet is impermeable to air and said supplementary sheet is permeable to air.

15. {new} The kit described in Claim 12 wherein said base sheet is permeable to air and said supplementary sheet is impermeable to air.

REMARKS

1. Examiner states that Applicant failed to supply paper copies of the foreign patents listed in the application. Applicant replies that this apparent omission was inadvertent and that paper copies of all five foreign patents listed in his Information Disclosure Statement, namely GB 2104366 A, JP 11-196687, JP 5-336857, JP 64-43141, and WO 86/04210, are being submitted with this paper.
2. The amendments to the Specification are made (a) to eliminate reference to a non-existent FIG. 8, (b) to provide mention in the Specification to the misting means shown in FIG. 4 and mentioned in Paragraph [0026] as originally submitted, and (c) to provide mention in the Specification of the bunching up of the cover as depicted in FIG. 4 as originally submitted.

3. The amendments to the Drawings are made to correct three erroneous labels.
4. The Claims are amended so as to more clearly reflect the disclosed invention and to distinguish it from the prior art cited against it in the referenced Official Action. In particular, Claim 1 was amended so as to make explicit the fact that that the hold-downs of the present invention are not affixed to the cover. It is respectfully submitted that the fact that they are *not* so affixed and that the cover is not affixed to the frame is made clear in the Specification as submitted, from Paragraph [0005] criticizing the prior art that affixed the hold-downs to the cover, and from Paragraphs [0011] and [0012].
5. The numbering of Claim 3 and Claim 4 is amended to as to be reversed, in the interest of having a more orderly hierarchy of claims after the amendment to Claim 3 (under the original numbering). The substantive amendment to this Claim adds an explicit limitation to the hold-downs, namely that must be stretched when used to hold down the cover. This aspect of the invention was made clear in Paragraph [0011] of the Specification as submitted. Claim 6 is amended to more distinctly claim the nature of the ventilation panels.
6. The rest of the original claims are left unchanged, and nine new claims are added with this paper. The new claims are all directed to a kit containing the elements of the device as described in the original application, and thus do not add new material. They do include more claims directed at the compound nature of the cover, as disclosed in the original application, including Paragraph [0013] and Paragraph [0023] and Paragraph [0024].
7. Examiner rejected pending Claims 1-5 based on 35 U.S.C. 102(b) because of Examiner's belief that all of the elements of each of said claims are disclosed by Hinsperger (U.S. Patent 5,605,007). It is submitted that the amendment to Claim 1 introduced with this paper takes that claim and all those depending from it out from under Hinsperger because of the manner Hinsperger discloses for holding down the cover. The further amendment to Claim 3, specifying elastic hold-downs that must be stretched over the cover strengthens the distinction between the present invention as claimed, and the Hinsperger disclosure.

8. Applicant respectively submits that the basic approach of the present invention differs markedly from that of Hinsperger. In contrast to one of the most important aspects of the present invention, the Hinsperger cover and frame (tantamount to the arches of the present invention) are affixed to one another when the device is in use. Column 2 of Hinsperger, starting at line 62, states

"The ...cover...may be fastened to the frame...by any suitable means preferably releasable fasteners. One preferred fastening arrangement is fabric loops attached to the ...plastic cover and situated on the frame. Such loops can be attached to the plastic by adhesive or sewing, or can be fused to the plastic. Such loops also can be formed of a VELCRO like material sealing onto a similar material positioned on the plastic."

It is clear both from this text and from the Hinsperger claims that although many means are envisioned for holding the cover on the frame, they all involve affixing something to the cover, which is then to be affixed to the frame. The fact that this something is "releaseable" is irrelevant in terms of the problems that this affixing creates. A major point in Applicant's Specification regarding prior art and the improvement that his invention represents is the importance of not having the cover a fixed to the objects supporting it. See, for example, Paragraph [0035] of the present Specification: "...[T]he prior art row cover systems usually affix the covers to the supports by staples or other affixing means deployed at specific locations on the supports. Unfortunately, this approach is vulnerable to failure in moderate to high winds..." In addition to making the system prone to failure under windy conditions, hold-down means that affix the cover to the supports interfere with the use of multiple covers or compound covers, as disclosed in the present Specification. In the present invention, multiple covers are easy to use. For example, one can drape a light cover directly over the arches, then a heavier one over the light one, holding both down by the bungee-cord-like lines stretched over the top of the heavy cover. When conditions, such as the warming afternoon sun, call for less protection from the ambient temperature, all one needs do is lift up the outer cover, bunching it up under the elastic hold-down lines. This disclosed feature of the present

invention underlies several of the claims sought to be added by this Amendment. Applicant submits that it would be very difficult if not impossible to make use of this compound cover approach with the invention disclosed by Hinsperger. For these reasons, it is respectfully submitted that the 35 U.S.C. 103(b) rejections do not apply to Claim 1 as amended, and hence do not apply to the Claims 2-6 depending from Claim 1.

9. Examiner noted that since the hold-downs of Hinsperger are holding down the cover "they are considered to be in tension." While granting that from the definition of "in tension," Examiner is correct, Applicant respectfully points out that an important aspect of his invention is that his hold-downs be elastic and pre-tensioned. The amendments submitted with this paper make this element explicit in Claim 3 and those depending from it. In addition, this element is made explicit in the new kit-type claims.

10. Examiner rejected pending Claim 6 based on 35 U.S.C. 103(a) because of her belief that although Claim 6 could not be rejected for lack of novelty using Hinsperger ... Hinsperger does not disclose the use of an additional base layer, that is, his disclosure is limited to a monolayered cover -- Dalle "teaches the use of multiple layers in a similar protective enclosure". Examiner notes further that

"[I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hinsperger's protective enclosure by adding at least another layer in order to provide further protection or environmental control..."

Applicant respectfully submits that, though the use of multiple layers *per se* is not novel, the use of multiple layers in conjunction with the rest of his device is novel and distinct from the manner in which Dalle teaches. In particular, the device of Dalle is very complex compared to that of the present invention, as might be expected from its use in conjunction with permanent structures.

Examiner also states that

"Regarding the limitation that the 'cover includes ... two ventilation panels', Hinsperger's device is capable of being raised and lowered at the two opposing sides of the arch supports 2, thus providing two ventilation panels."

4

While agreeing that Hinsperger teaches a mono-layer cover that can be partially slid up over his frame so as to open the row of plants to the outside air, Applicant respectfully submits that for the reasons set out above in this paper, this will not work if one wishes to have a compound cover, such that a portion of it can be lifted clear of the plants while leaving an underlying portion separating the plants from the ambient. It is respectfully asserted that with the amendment to Claim 6 submitted with this paper, the invention claimed by Claim 6 is sufficiently distinct from the devices disclosed by Hinsperger and Dalle to overcome the 35 U.S.C. 103(a) rejection based on Hinsperger and Dalle.

11. It is submitted that the new claims added with this paper are also all in allowable condition, simply being kit versions of the device claimed in the existing claims as modified.

12. Applicant respectfully requests that for the reasons set out above Examiner deem all of the claims as amended in order for allowance.

13. Although nine new claims have been added, the total number of claims pending after entry of this amendment will be fewer than 21 and the number of independent claims will be fewer than 4 and hence no additional filing fee need be submitted.

Respectfully submitted,

Date: June 8, 2004



Thomas L. Bohan
Attorney for Applicants
Reg. No. 28,713
Bohan, Mathers & Associates, LLC
P.O. Box 17707
Portland, ME 04112-8707
VOICE (207)773-3132
FAX (207)773-4585
tb@bohanmathers.com